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WHAT IS CLAIMED IS:

1. A method of forming an implant in-situ, in a body, comprising the steps of:

- a) dissolving a non-reactive polymer in a biocompatible solvent to form a liquid;
- b) placing said liquid within said body; and
- c) allowing said solvent to dissipate to produce a solid implant.

2. The method of Claim 1, wherein said polymer is selected from the group consisting essentially of polylactides, polyglycolides, polycaprolactones, polydioxanones, polycarbonates, polyhydroxybutyrates, polyalkylene oxalates, polyanhydrides, polyamides, polyesteramides, polyurethanes, polyacetates, polyketals, polyorthocarbonates, polyphosphazenes, polyhydroxyvalerates, polyalkylene succinates, poly(malic acid), poly(amino acids), polyvinylpyrrolidone, polyethylene glycol, polyhydroxycellulose, chitin, chitosan, and polyorthoesters, and copolymers, terpolymers and combinations and mixtures thereof.

3. The method of Claim 1, wherein said polymer is selected from the group consisting essentially of polylactides, polycaprolactones and copolymers thereof with glycolide.

4. The method of Claim 1, wherein said solvent is selected from the group consisting essentially of N-methyl-2-pyrrolidone, 2-pyrrolidone, ethanol, propylene glycol, acetone, ethyl acetate, methyl acetate, methyl ethyl ketone, dimethylformamide, dimethyl sulfoxide, tetrahydrofuran, caprolactam, decylmethylsulfoxide, oleic acid and 1-dodecylazacycloheptan-2-one and combinations and mixtures thereof.

5. The method of Claim 1, wherein said solvent is selected from the group consisting essentially of N-methyl-2-pyrrolidone, 2-pyrrolidone, dimethyl sulfoxide and acetone, and a combination or mixture thereof.

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6. The method of Claim 1, wherein said polymer is biodegradable.

Sub B27

7. The method of Claim 1, and further comprising the step of adding an effective amount of biologically active agent to said liquid to provide an implant which releases said agent by diffusion and/or by erosion as said implant biodegrades.

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8. The method of Claim 1, and further comprising delivering said liquid in-situ through a needle.

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The method of Claim 1, wherein said solvent is comprised of a binary solvent mixture having a first solvent

capable of dissolving said polymer and a second solvent incapable of dissolving said polymer, said first and second solvents being present in said mixture at a ratio such that said polymer is soluble therein, so that said polymer is precipitated from said liquid upon the placing of said liquid within said animal, thereby resulting in an increase in said ratio of said second solvent to said first solvent.

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10. The method of Claim 9, wherein said polymer is a lactide polymer and said second solvent is selected from the group consisting essentially of water, ethanol and propylene glycol.

11. A method of forming an implant in-situ in a body, comprising the steps of:

- a) placing a liquid, biocompatible polymer within said body; and
- b) curing said polymer in-situ to form said implant.

12. The method of Claim 11, and wherein said liquid polymer is an acrylic-ester-terminated prepolymer and a curing agent is added to said prepolymer prior to placement of said prepolymer and allowing said prepolymer to cure in-situ.

13. The method of Claim 12, and further comprising the step of synthesizing said prepolymer via copolymerization of DL-lactide with ϵ -caprolactone.

14. The method of Claim 12, and further comprising the step of synthesizing said prepolymer via copolymerization of L-lactide with ϵ -caprolactone.

15. A method of forming a solid implant in-situ within a body, comprising the steps of:

a) mixing together effective amounts of liquid acrylic-ester-terminated, biodegradable prepolymer and a curing agent to form a mixture in a liquid form; and

b) delivering said mixture within said body while said mixture is in a liquid form so as to allow said prepolymer to cure to form said solid implant.

16. The method of Claim 15, and further comprising the step of forming said liquid acrylic-ester-terminated prepolymer by converting a polyol-terminated prepolymer.

17. The method of Claim 16, and further comprising the step of forming said polyol-terminated prepolymer by copolymerization of DL-lactide and ϵ -caprolactone with a polyol initiator.

18. The method of Claim 17, and further comprising the step of adding a catalyst to said copolymerization step.

19. The method of Claim 18, wherein said catalyst is stannous octoate.

20. The method of Claim 18, wherein said catalyst is stannous chloride.

21. The method of Claim 16, and further comprising the step of forming said polyol-terminated prepolymer by copolymerization of L-lactide and ϵ -caprolactone with a polyol initiator.

22. The method of Claim 21, and further comprising the step of adding a catalyst to said copolymerization step.

23. The method of Claim 22, wherein said catalyst is stannous octoate.

24. The method of Claim 22, wherein said catalyst is stannous chloride.

25. The method of Claim 15, wherein said curing agent is azobisisobutyronitrile.

26. The method of Claim 15, wherein said curing agent is benzoyl peroxide.

27. The method of Claim 15, and further comprising the step of adding a biologically active agent to said prepolymer and curing agent mixture to provide, upon curing, a biodegradable implant which releases said biologically active agent by diffusion or erosion as said implant biodegrades.

28. The method of Claim 15, wherein said delivering step comprises injecting said mixture into said body by means of a syringe and needle.

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~~29.~~ A biodegradable implant for a body produced according to the method of Claim 1.

30. A biodegradable implant for a body produced according to the method of Claim 11.

31. A biodegradable implant for a body produced according to the method of Claim 15.

32. A composition for forming a biodegradable implant in-situ within a body, comprising an effective amount of a non-reactive biocompatible polymer dissolved within a biocompatible

solvent which is capable of dissipating upon placement within a body to form said implant.

33. The composition of Claim 32, wherein said polymer is selected from the group consisting essentially of polylactides, polyglycolides, polycaprolactones, polydioxanones, polycarbonates, polyhydroxybutyrates, polyalkylene oxalates, polyanhydrides, polyamides, polyesteramides, polyurethanes, polyacetates, polyketals, polyorthocarbonates, polyphosphazenes, polyhydroxyvalerates, polyalkylene succinates, poly(malic acid), poly(amino acids), polyvinylpyrrolidone, polyethylene glycol, polyhydroxycellulose, chitin, chitosan, polyorthoesters, and copolymers, terpolymers and combinations and mixtures thereof.

34. The composition of Claim 32, wherein said polymer is selected from the group consisting essentially of polylactides, polycaprolactones and copolymers thereof with glycolide.

35. The composition of Claim 32, wherein said solvent is selected from the group consisting essentially of N-methyl-2-pyrrolidone, ethanol, propylene glycol, 2-pyrrolidone, acetone, methyl acetate, ethyl acetate, methyl ethyl ketone, dimethylformamide, dimethyl sulfoxide, tetrahydrofuran, caprolactam, decylmethylsulfoxide, oleic acid and 1-dodecylazacycloheptan-2-one and combinations and mixtures thereof.

36. The composition of Claim 32, wherein said solvent is selected from the group consisting essentially of N-methyl-2-pyrrolidone, 2-pyrrolidone, dimethyl sulfoxide and acetone, and a combination or mixture thereof.

37. The composition of Claim 32, and further comprising an effective amount of a biologically active agent.

38. A composition for forming a polymer which is curable in-situ within a body to produce a biodegradable implant, comprising a liquid acrylic-ester-terminated prepolymer capable of being cured into said implant upon addition of an effective amount of a curing agent.

39. The composition of Claim 38, wherein said liquid acrylic ester terminated prepolymer is a product of a conversion of a polyol-terminated prepolymer.

40. The composition of Claim 39, wherein said polyol-terminated prepolymer is a product of co-polymerization of DL-lactide and ϵ -caprolactone with a polyol initiator.

41. The composition of Claim 39, wherein said polyol-terminated prepolymer is a product of co-polymerization of L-lactide and ϵ -caprolactone with a polyol initiator.

42. The composition of Claim 38, wherein said curing agent is azobisisbutyronitrile.

43. The composition of Claim 38, wherein said curing agent is benzoyl peroxide.

44. The composition of Claim 38, and further comprising an effective amount of a biologically active agent.

45. A composition for forming a biodegradable implant in-situ within an animal, comprising a biocompatible solvent and an effective amount of a biocompatible polymer dissolved within said solvent, said solvent comprising a first solvent which dissolves said polymer and a second solvent which does not dissolve said polymer, said first and second solvents being present in a ratio such that said polymer is soluble therein but is precipitated therefrom upon an increase in the amount of said second solvent which is present within said animal.

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